

DART-Engineering Status

November 2000

In August 2000, three moorings were recovered and deployed by the NOAA Ship *Ronald H. Brown*. To save laboratory resources and improve reliability, newly deployed systems have no surface mooring acoustic release and each system is equipped with a bottom package having a lifetime of 2 years. The DART buoys are transmitting real-time data with estimated system return >95%. Each DART system has successfully cycled through a pre-programmed test designed to verify system operation during a simulated trigger event. In addition, appropriately located DART systems have responded to recent earthquakes by triggering into real-time tsunami reporting mode. These test and observational results give us increasing confidence in the performance and siting of the DART Network, which continues to operate as planned. Four of four systems are working in the North Pacific at stations D-130, D-157, D-165 & D-171. D-171 is the deepest site deployed to date with a depth of 5579m.

Because of sustained great weather in the Gulf of Alaska, NOAA Ship *Ronald H. Brown* was able to accomplish all cruise objectives and arrive in Dutch Harbor, Alaska earlier than scheduled. Weather generally governs what can be safely accomplished in the North Pacific. Scheduling of Tsunami DART mooring work in mid to late summer is crucial to the success of the Project and has the added benefit of reducing sea days for more efficient vessel use.

Presently the PMEL Engineering Development Division is working on a new BPR printed circuit board design to replace electronic components that are no longer commercially available. A prototype is now being developed and will be ready for testing in Spring 2001.

August 2000 Mooring Pair Recoveries:

Type	Name	Latitude [N]	Longitude [W]	Depth [M]
DART	D-157A	52°05.19'N	156°39.69'W	4697
DART	D-157B	52°39.5'W	156°56.61'W	4523
DART	D-165	50°31.76'N	164°56.20'W	4918

August 2000 Mooring pair Deployments:

Type	Name	Latitude [N]	Longitude [W]	Depth [M]
DART	D-157	52°38.89'N	156°55.92'W	4485
DART	D-165	50°26.23'N	165°02.56'W	4936

DART	D-171	46.38°51'N	170°48.00'W	5579
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